



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,448	02/11/2004	Winthrop D. Childers	200309247-1	4780
22879 7590 03/28/2008 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400				
EXAMINER				
ALI, SHUMAYA B				
ART UNIT		PAPER NUMBER		
3771				
NOTIFICATION DATE		DELIVERY MODE		
03/28/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM
mkraft@hp.com
ipa.mail@hp.com

Office Action Summary

Application No.

10/777,448

Applicant(s)

CHILDERS, WINTHROP D.

Examiner

SHUMAYA B. ALI

Art Unit

3771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14, 19-21 and 32-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 34, 38, 39 is/are allowed.
- 6) ☒ Claim(s) 1-14, 19, 21, 32 and 33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Status of Claims

1. In response to the office action mailed on 9/7/07, Applicant amended claims 1, 19, 32, 34, 38, and 39, and claims 15-18, 20, and 22-31 are previously cancelled. Currently claims 1-14, 19, 21, and 32-39 are pending in the instant application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. **Claims 1-4, 6, 7, 9-14, 19, 21, 32, 33, 36, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schuler et al. US 2005/0051162 A1 in view of Cox et al. US 6,234,167 B1.**

As to claim 1, Schuler discloses a medicament dispenser comprising a fluid medicament supply (105), an ejector (opening though valve 140), an accumulator (130) in fluid

communication with the ejector, a valve (135) in fluid communication with the fluid medicament supply and the accumulator (see fig. 1A). Schuler however lacks a sensor configured to sense an accumulator characteristic, and a controller configured to operate the valve in response to the accumulator characteristic. However, Cox teaches an accumulator (45) with a sensor (48) with communicates with a controller (43) to regulate pressure (i.e., decrease pressure) within the accumulator (45) (see col.5 lines 26-41). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Schuler in order to provide a sensor for the purposes of sensing the pressure within the accumulator and a controller so that the controller can process signal from the sensor for the purposes of regulating pressure within the accumulator as taught by Cox.

As to claim 2, Cox teaches a pressure sensor (48), thus the sensor is configured to sense fluid pressure within the accumulator.

As to claim 3, since pressure sensor (48) sense the pressure of gas (see col.5, lines 27 and 28) and there is a direct relationship between the volume and pressure of a gas, Cox's pressure sensor inherently capable of sensing a volume defined by the accumulator.

As to claim 4, Cox teaches the sensor is fluidically coupled to the accumulator (see fig.1).

As to claim 6, Schuler discloses a compliant member (140), compliant member 140 would open and close depending on the pressure within the accumulator, and therefore member regulates pressure within the accumulator.

As to claim 7, Schuler member (140) deform to different position (see fig. 1A and 1b), thus the compliant member is configured to regulate pressure by deforming elastically in response to changes in accumulator pressure.

As to claim 8, the compliant member is a valve that response to positive and negative pressure within the accumulator, therefore, inherently capable of regulating negative accumulator pressure.

As to claim 9, Cox teaches a pressure sensor, and valve (140) regulates pressure, therefore, it would have been obvious to position the sensor on the compliance member.

As to claim 10, Cox teaches the valve includes a micro valve (col.3, lines 3).

As to claim 11, Cox teaches a battery powered (fig.1, 41) controller (fig.1, 43) the valve is actuated by the magnetic power of the battery, Cox thus discloses wherein the micro valve includes a magnetic actuator.

As to claim 12, Cox teaches a display (fig.2, 65) configured to provide information to a user of the dispenser.

As to claim 13, Cox teaches wherein the information includes the number of doses of medicament remaining in the dispenser (col.7, lines 46-55).

As to claim 14, Cox teaches wherein the information includes an indication (fig.2, 63) to replace the fluid medicament supply.

As to claim 19, Schuler discloses a method of dispensing a medicament using a medicament dispenser (105) including a fluid medicament supply (110), an ejector (at the opening of valve 140), an accumulator (130) in fluid communication with the ejector (see fig.1A), a valve (135) in fluid communication with the fluid medicament supply and the

accumulator (see fig.1), wherein the valve connects the fluid medicament supply with the accumulator (see fig.1A). Cox teaches a sensor and a controller as applied for claim 1.

As to claim 21, Cox teaches sensors 48 and 57, which are capable of sensing pressure. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to compare the sensed pressure to a minimum acceptable medicament pressure within the accumulator using Cox's sensor.

As to claim 32, Schuler discloses an inhaler (fig.1A, B), comprising: a fluid medicament supply means (105); an ejector means (outlet of valve 140); an accumulator means (130) in fluid communication with the ejector means; a valve means (135) in fluid communication with the fluid medicament supply means and the accumulator means (see fig.1A), wherein the valve connects the fluid medicament supply means with the accumulator means (see fig.1A). Cox teaches a sensing means (48) and a controller (43) means as applied for claim 1.

As to claim 33, Schuler discloses a valve means (140) which opens and closes based on pressure within the accumulator, therefore, means (140) regulates pressure within the accumulator.

As to claim 36, Cox teaches sensing a second medicament pressure (via 57, 48) within the accumulator and comparing the second pressure to a desired pressure.

As to claim 37, Cox teaches the second pressure is less than the desired pressure, further comprising generating a notification (65) that the fluid medicament supply should be renewed.

5. Claims 5 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schuler et al. US 2005/0051162 A1/Cox et al. US 6,234,167 B1 and further in view of Poole US 6,158,431.

As to claim 5, Schuler/Cox lacks wherein the sensor is configured to sense pressure adjacent the ejector. However, Poole in a handheld therapeutic material teaches a pressure sensor (144) adjacent an ejector (120) of an accumulator (18) (see col.9, lines 1-6). Therefore, it would have been obvious to change the location of Cox's sensor since it is known in the art as taught by Poole.

As to claim 35, Cox's controller is inherently capable of operating the valve to increase the pressure adjacent the ejector.

Response to Arguments

6. Applicant's arguments with respect to claims 1-14, 19-21, 32-33, and 35-37 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

7. Claims 34, 38, and 39 are allowable over prior art of record.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

9. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHUMAYA B. ALI whose telephone number is (571)272-6088. The examiner can normally be reached on M-W-F 9 am - 5 pm.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on 571-272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shumaya B. Ali /
Examiner, Art Unit 3771

/Justine R Yu/
Supervisory Patent Examiner, Art Unit 3771

Application Number**Application/Control No.**

10/777,448

**Applicant(s)/Patent under
Reexamination**

CHILDERS, WINTHROP D.

Examiner

SHUMAYA B. ALI

Art Unit

3771